WHAT IS CLAIMED IS:

1. An optical head device, comprising:

a light source for emitting light;

a collection optical system for collecting the light emitted by the light source to an information memory medium including at least one of a track having a mark or a space selectively arranged, and a track having a prescribed groove;

a light detector having a plurality of detection areas for receiving the light reflected by the information memory medium and outputting a signal in accordance with a light amount of the light received;

a division element for dividing the light reflected by the information memory medium and allowing the light to be received by the light detector;

a switch element for receiving a first signal and a second signal, which are respectively obtained in accordance with the reflected light incident on a first prescribed area and a second prescribed area of the division element and outputting either one of the first signal or the second signal, the first and second prescribed areas being obtained by dividing the division element along at least one division line; and

an information reproduction signal generator for receiving the signal output by the switch element and generating information recorded on the track,

wherein the switch element outputs either one of the first signal and the second signal in accordance with a distance and a positional relationship between a light collection point of the light output from the collection light system and the track.

2. An optical head device according to claim 1, wherein:

the division element is divided into at least three areas by at least two division lines which are substantially parallel to a tangent of the track, and

where either two of the at least two division lines are defined as a first division line and a second line, an area sandwiched between the first division line and the second division line is defined as area B, an area outside the first division line is defined as area A, and an area outside the second division is defined as area C; the first prescribed area includes the area A and the area B, and the second prescribed area includes the area B and the area C.

3. An optical head device according to claim 1, wherein the division element has a transverse division line which is substantially vertical to a tangent of the track of the information memory medium and a longitudinal division line which is substantially parallel to the tangent of the track, and each of the first prescribed area and the second prescribed area is one of at least three areas obtained by dividing the division element by the transverse division line and the longitudinal division line, the first prescribed area and the second prescribed area being opposite to each other with respect to the longitudinal division line.

4. An optical head device according to claim 3, wherein:

the division element is divided into at least four areas by the transverse division line which is substantially vertical to the tangent of the track of the information memory medium and at least two longitudinal division lines which are substantially parallel to the tangent of the track, and

where either two of the at least two longitudinal division lines are defined as a first longitudinal division line and a second longitudinal division line, an area surrounded by the first longitudinal division line, the second longitudinal division lines and the transverse division line is defined as area B, an area surrounded by the first longitudinal division line and the transverse division line and bordering on the area B is defined as area A, an area surrounded by the second longitudinal division line and the transverse division line and bordering on the area B is defined as area C; the first prescribed area includes the area A and the area B, and the second prescribed area includes the area B and the area C.

5. An optical head device, comprising:

a light source for emitting light;

a collection optical system for collecting the light emitted by the light source to an information memory medium including at least one of a track having a mark or a space selectively arranged, and a track having a prescribed groove;

a light detector having a plurality of detection areas for receiving the light reflected by the information memory medium and outputting a signal in accordance with a light amount of the light received;

a division element for dividing the light reflected by the information memory medium and allowing the light to be received by the light detector; and

an information reproduction signal generator for reproducing information recorded on the track based on a differential signal obtained in accordance with the reflected light which is incident on a first prescribed area and the reflected light which is incident on a second prescribed area, the first and second prescribed areas being obtained by dividing the division element along at least one division line,

wherein:

a cross-section of the reflected light on the division element is a substantial circle having a radius R,

the division element is divided into at least three areas by at least two division lines substantially parallel to the tangent of the track of the information memory medium and away from a center of the substantial circle by a prescribed distance d; and

where a light collection point from the collection optical system is at a position away from the track by a prescribed distance, with an area among the three areas which excludes the center of the substantial circle being a first prescribed area, and another area among the three areas which excludes the center of the substantial circle being a second prescribed area, information recorded on the track is obtained by the information reproduction signal generator, the prescribed distance d being shorter than the radius R,

wherein

the division element is divided into at least four areas by a transverse division line which is substantially vertical to the tangent of the track of the information memory medium, a first longitudinal division line which is substantially parallel to the tangent of the track and away from the center of the substantial circle by the prescribed distance d, and a second longitudinal division line which is substantially parallel to the tangent of the track and away from the center of the substantial circle by the prescribed distance d opposite from the first longitudinal division line; an area surrounded by the first longitudinal division line and the transverse division line is defined as the first prescribed area, an area surrounded by the second longitudinal division line and the transverse

division line is defined as the second prescribed area.

6. An optical head device, comprising:

a light source for emitting light;

a collection optical system for collecting the light emitted by the light source to an information memory medium including at least one of a track having a mark or a space selectively arranged, and a track having a prescribed groove;

a light detector having a plurality of detection areas for receiving the light reflected by the information memory medium and outputting a signal in accordance with a light amount of the light received;

a division element for dividing the light reflected by the information memory medium and allowing the light to be received by the light detector; and

an information reproduction signal generator for reproducing information recorded on the track based on a differential signal obtained in accordance with the reflected light which is incident on a first prescribed area and the reflected light which is incident on a second prescribed area, the first and second prescribed areas being obtained by dividing the division element along at least one division line,

wherein:

a cross-section of the reflected light on the division element is a substantial circle having a radius R,

the division element is divided into four areas by two division lines substantially parallel to the tangent of the track of the information memory medium and away from a center of the substantial circle by a prescribed distance d and another division line passing through the center of

the substantial circle; and

where a light collection point from the collection optical system is at a position away from the track by a prescribed distance with two areas among the four areas which are out of contact with each other being the first prescribed area, and the other two areas being collectively the second prescribed area, information recorded on the track is obtained by the information reproduction signal generator, the prescribed distance d being shorter than the radius R,

wherein

the division element is divided into at least five areas by a transverse division line which is substantially vertical to the tangent of the track of the information memory medium, a first longitudinal division line which is substantially parallel to the tangent of the track and away from the center of the substantial circle by the prescribed distance d, a second longitudinal division line which is substantially parallel to the tangent of the track and away from the center of the substantial circle by the prescribed distance d opposite from the first longitudinal division line, and a third longitudinal division line passing through the center of the substantial circle; an area surrounded by the first longitudinal division line and the transverse division line is defined as area A, an area surrounded by the first longitudinal division line, the third longitudinal division line and the transverse division line is defined as area B, an area surrounded by the second longitudinal division line, the third longitudinal division line and the transverse division line is defined as area C, an area surrounded by the second longitudinal division line and the transverse division line is defined as area D, the area A and the area C are collectively the first prescribed area,

and the area B and the area D are collectively the second prescribed area.

7. A method for processing information stored on an information memory medium, the method comprising the steps of:

emitting at least one of a coherent beam and a quasi-monochromatic beam;

collecting the beam emitted by a light source to an information memory medium having a track having at least one of a mark and a space selectively arranged;

receiving the beam reflected by the information memory medium by a plurality of detection areas and outputting a signal in accordance with an amount of the beam received;

dividing the beam reflected by the information memory medium;

receiving a signal obtained in accordance with the reflected beam incident on a first prescribed area and the reflected beam incident on a second prescribed area and outputting either one of the signals, the first and second prescribed areas being obtained by dividing by the step of dividing; and

reproducing information recorded on the track based on the signal obtained by the step of switching,

wherein the step of switching includes the step of switching the signal to be output in accordance with a positional relationship between a light collection point obtained by the step of collecting and the track.